

Reasonably Available Control Measures Analyses

Federal Clean Air Act Sections 172(c)(1) and (c)(2) require the District to demonstrate that it has adopted all control measures necessary to attain the 2008 federal 8-hour ozone standard as expeditiously as practicable and to meet Reasonable Further Progress (RFP) requirements. Reasonably Available Control Measures (RACM) applies to stationary source control measures, Transportation Control Measures, and mobile source control measures.

A potential control measure is considered “reasonably available” and must be implemented if it would advance attainment by at least one year, either alone or in combination with other reasonably available control measures. This means the combined emission reductions from RACM must be sufficient to reduce the emission inventory projected for 2019 (or earlier) to that currently projected for 2020, the attainment year, or lower. If such emission reductions can be demonstrated, the combined RACM measures must be implemented.

As shown in Table K-3, of Appendix K, *Ventura County Weight of Evidence Assessment*, the projected NO_x and ROG emissions are 31 and 32 tons per day, respectively, in the attainment year 2020. The projected 2019 NO_x and ROG emissions are 33 and 32 tons per day respectively. Therefore, in order to be considered RACM, the combined control measures must reduce NO_x emissions by two tons per day.

Stationary Source RACM

District stationary source ROG and/or NO_x prohibitory rules that were not fully addressed in the District’s 2014 RACT SIP were evaluated for potential RACM emission reductions for the 2016 AQMP. Staff compared District rules to rules adopted by other air districts with higher or “worse” nonattainment classifications, namely the SCAQMD and the San Joaquin Valley Air Pollution Control District (SJVAPCD). Staff also reviewed rules from other air districts such as the Bay Area Air Quality Management District (BAAQMD).

District staff also identified a few rules from other air districts that apply to unregulated source categories in Ventura County. District staff conducted preliminary evaluations of the potential emission reductions, including the cost effectiveness and timing of the potential reductions.

A very conservative estimate of the total emission reductions achievable through potential RACM new and amended rules are as follows:

NO_x: 0.008 tons per day
ROG: 0.25 tons per day

As noted above, in order to advance attainment by one year, emission reductions of at least two tons of NO_x per day must be achieved. The potential RACM identified by the District are a tiny fraction of the required NO_x reductions.

Since the ROG inventory remains stable for the two years prior to the District's modeled attainment, it is unclear how much ROG emissions reductions would be required to advance the attainment date. However, it is clear that reducing ROG emissions less than 1% of the county's anthropogenic emissions inventory is insufficient to advance the attainment date. Such a reduction is well within the margin of error for the emissions inventory and the annual variability of emissions due to other factors.

Appendix E, *Stationary Source Reasonably Available Control Measure Assessment*, provides the details of the stationary source RACM evaluations.

Transportation Control Measure RACM

The Clean Air Act requires a review of RACM for TCMs during AQMP development. Review of RACM provides an analysis of all potential TCMs that can be included as part of the control strategy in the AQMP. TCMs must be both technologically and economically feasible and must advance the projected attainment date of the air quality standard by at least one year to be considered RACM.

Appendix F, *Ventura County Transportation Control Measure Reasonably Available Control Measure Assessment*, lists the TCM RACM assessments conducted for the 2016 AQMP.

Mobile Source RACM

Appendix G, *Ventura County Mobile Source Reasonably Available Control Measures Assessment*, presents California's emission standards, fuel specifications, and incentive programs for heavy-duty vehicles that are technologically and economically feasible in California, including Ventura County.

RACM Conclusion

The combination of feasible RACM measures (stationary source, mobile source, and transportation control measures) not already implemented in Ventura county would provide only a tiny fraction of the 2.0 tons NO_x per day reductions needed to advance the county's attainment date by at least one year. Therefore, none of the potential additional control measures are reasonably available, and therefore, none require adoption for the purposes of the 2016 AQMP.

Incentive Programs

The District participates in three clean air incentive programs to help Ventura County meet state and federal clean air standards: the *Carl Moyer Memorial Air Quality Standards Attainment Program*, the *Lower Emissions School Bus Program*, and the *Clean Air Fund*. Below are summaries of these programs. Further information regarding the District's clean air incentive programs is available on the District's [Grants/Incentive Programs](#) website.

APPENDIX F
VENTURA COUNTY
TRANSPORTATION CONTROL MEASURES
REASONABLY AVAILABLE CONTROL MEASURE ASSESSMENT

Introduction

The Clean Air Act (CAA) Section 172(c)(1) requires a review of Reasonably Available Control Measures (RACM) during the Air Quality Management Plan/State Implementation Plan (AQMP/SIP) development process to consider possible Transportation Control Measures (TCMs) that are feasible to implement in Ventura County. For TCMs to be RACM, TCMs must be both technologically and economically feasible and must advance the projected attainment date of the National Ambient Air Quality Standard (NAAQS).

The U.S. Environmental Protection Agency (EPA) left the definitions for technologically and economically feasibility vague so that areas of the country could determine what measures would be feasible or infeasible according to local factors. Factors such as the availability of control measures, ability to achieve emission reductions, and degree of cost effectiveness are the primary considerations on an area-by-area basis. In addition, EPA did not provide a conclusive definition on “advancing attainment,” so agencies have based their determination of RACM on whether a measure or group of measures would advance attainment of the NAAQS by at least one year.

Methodology

A list of candidate RACM was prepared by the District using TCMs from the Clean Air Act (CAA) Section 108(f)(1)(A), the 2008 Ventura County AQMP, other air districts and planning agency plans, such as the 2012 South Coast AQMP, 2007 San Joaquin AQMP, 2013 Sacramento AQMP, and the 2004/2007 Metropolitan Washington Council of Governments SIP.

The District, along with VCTC staff, conducted an initial RACM analysis. Each candidate TCM was given a control measure number, title, and a brief description on the RACM list. If a TCM was found feasible for Ventura County, it was recommended as a potential measure for the 2016 AQMP along with the appropriate implementing agency. If a TCM was determined infeasible for Ventura County, it was not recommended as a measure for the 2016 AQMP and a reasoned justification was provided.

Based on this comprehensive analysis and review, the majority of TCMs that were determined to be feasible are either being implemented, or have been implemented in Ventura County. The TCMs determined to be infeasible did not meet the criteria for RACM because of the individual reasons provided in the analysis. Moreover, implementing all feasible TCMs in the RACM assessments would not advance Ventura County’s 8-hour ozone attainment date by at least one year. This criterion also applies to RACM implementation.

The RACM under consideration were organized according to the sixteen TCM categories listed in CAA Section 108(f), shown below.

- i. Programs for improved use of public transit;

- ii. Restriction of certain roads or lanes to, or construction of such roads or lanes for use by, passenger buses or high occupancy vehicles;
- iii. Employer-based transportation management plans, including incentives;
- iv. Trip-reduction ordinances;
- v. Traffic flow improvement programs that achieve emission reductions;
- vi. Fringe and transportation corridor parking facilities, serving multiple occupancy vehicle programs or transit service;
- vii. Programs to limit or restrict vehicle use in downtown areas or other areas of emission concentration, particularly during periods of peak use;
- viii. Programs for the provision of all forms of high-occupancy, shared-ride services, such as the pooled use of vans;
- ix. Programs to limit portions of road surfaces or certain sections of the metropolitan area to the use of non-motorized vehicles or pedestrian use, both as to time and place;
- x. Programs for secure bicycle storage facilities and other facilities, including bicycle lanes, for the convenience and protection of bicyclists, in both public and private areas;
- xi. Programs to control extended idling of vehicles;
- xii. Programs to reduce motor vehicle emissions, consistent with Title II of the Clean Air Act, which are caused by extreme cold start conditions;
- xiii. Employer-sponsored programs to permit flexible work schedules;
- xiv. Programs and ordinances to facilitate non-automobile travel, provision and utilization of mass transit, and to generally reduce the need for single-occupant vehicle travel, as part of transportation planning and development efforts of a locality, including programs and ordinances applicable to new shopping centers, special events, and other centers of vehicle activity;
- xv. Programs for new construction and major reconstruction of paths, tracks or areas solely for the use by pedestrian or other non-motorized means of transportation, when economically feasible and in the public interest; and

- xvi. Programs to encourage the voluntary removal from use and the marketplace of pre-1980 model year light duty vehicles and pre-1980 model light duty trucks.

The RACM list, in this appendix as Table F-1, was posted on the VCAPCD website and was presented to the following committees for their review: the Transportation Conformity Working Group, Technical Transportation Advisory Committee, Transit Operators Committee, Citizen Transportation Advisory Committee, and Social Services Transportation Advisory Committee. Questions and answers followed each presentation. No comments were submitted that altered the RACM analysis.

Summary

The CAA Section 172(c)(1) requires a comprehensive review of RACM during the AQMP/SIP development process to ensure the implementation of TCMs in Ventura County as expeditiously as practicable. For TCMs to be considered RACM they must be both economically and technologically feasible and must advance the attainment date of the NAAQS by at least one year. Based on this comprehensive analysis, the majority of TCMs determined to be feasible are either being implemented, or have been implemented, in Ventura County. The TCMs determined to be infeasible did not meet the criteria for RACM because of the individual reasons provided in the analysis. Moreover, implementing all feasible TCMs in the RACM analysis would not advance Ventura County's 2008 8-hour ozone NAAQS attainment date by at least one year.

Table F-1
2016 Ventura County Reasonably Available Control Measures Analysis

Measure No.	Measure Title	Description	Feasible for VC?	Used before in VC?	Reasoned Justification for Infeasible Measure	Potential Implementing Agency
Section 108(f) 1. Programs For Improved Public Transit						
1.1	Regional Express Bus Program	Purchase of buses to operate regional express bus services.	yes	yes		Transit Operators, VCTC
1.2	Transit Access to Airports	Operation of transit to airport to serve air passengers.	no	no	Not economically feasible because there are not enough air passengers in Ventura County.	
1.3	Study Benefits of a Particulate Trap Retrofit Program	Examine potential to accelerate application of particulate traps on diesel-powered buses to achieve earlier compliance with State regulations.	yes	yes		Transit Operators, VCAPCD, VCTC
1.4	Major Expansion of Mass Transit	Major change to the scope and service levels.	no	no	Not economically feasible because there is not enough transit demand for order of magnitude increases in spending.	
1.5	Expansion of Public Transportation Systems	Expand and enhance existing public transit services.	yes	yes		Transit Operators, VCTC
1.6	Transit Service Improvements in Combination with Park-and-Ride Lots and Parking Management	Local jurisdictions and transit agency improve the public transit system and add new Park-and-Ride facilities and spaces on an as needed basis.	yes	yes		Cities, County, Transit Operators, VCTC
1.7	Free transit during special events	Offer free transit during selected special events to reduce event-related congestion and associated emission increases.	no	no	No authority to implement, however, individual transit agencies could decide whether this measure would be feasible to implement for them.	

Measure No.	Measure Title	Description	Feasible for VC?	Used before in VC?	Reasoned Justification for Infeasible Measure	Potential Implementing Agency
1.8	Require that government employees use transit for home to work trips, expand transit, and encourage large businesses to promote transit use	Require all government employees to use transit a specified number of times per week.	no	no	No authority to implement.	
1.9	Increase parking at transit centers or stops	Encourage transit convenience by providing additional parking at transit centers.	yes	yes		Cities, County, Transit Operators, VCTC
1.10	Expand regional transit connection ticket distribution	Provides interchangeability of transit ticket.	yes	yes		Transit Operators, VCTC
1.11	Provide free public transit during episodes	Provide free transit rides during high level ozone episodes.	no	no	Not economically feasible.	
1.12	Dedicated Bus Lanes	Dedicate or construct lanes for transit bus service.	yes	yes		Cities, County, Transit Operators
1.13	Half Price Fares on Feeder Bus Service	All local transit bus services to rail stations reduce fare by half.	no	yes	Not economically feasible, however, one transit agency has reported reduced fares to rail stations.	
1.14	Real-Time Bus Schedule information	Expand trials of real-time bus schedule information to local transit providers.	yes	yes		Transit Operators, VCTC
1.15	Shorter Distance from Buildings to Bus Stops	For existing buildings, re-route traffic to allow buses to come closer to the building. For new buildings, alter setback requirements to allow closer bus access.	no	no	Not economically feasible, however, some jurisdictions may already have existing requirements for new development.	
1.16	Subscription Services	Free van service to provide transportation for the elderly, handicapped or individuals who have no access to transportation.	no	yes	Not economically feasible, however, some transit agencies provide free bus service w/ ADA or DAR ID.	

Measure No.	Measure Title	Description	Feasible for VC?	Used before in VC?	Reasoned Justification for Infeasible Measure	Potential Implementing Agency
1.17	Consolidation of Public Transit Operators	Consolidate all public transit agencies in the County.	no	no	No authority to implement.	
1.18	Transit Voucher Program	Transit vouchers for elderly and low income commuter.	yes	yes		Transit Operators, VCTC
Section 108(f) 2. Restriction Of Certain Roads Or Lanes To, Or Construction Of Such Roads Or Lanes For Use By, Passenger Buses Or High Occupancy Vehicles						
2.1	Update High Occupancy Vehicle (HOV) Lane Master Plan	Analysis of increased enforcement, increasing occupancy requirements, conversion of existing HOV lanes to bus only lanes and/or designation of any new carpool lanes as bus-only lanes; utilization of freeway shoulders for peak-period express bus use; commercial vehicle buy-in to HOV lanes; and appropriateness of HOV lanes for corridors that have considered congestion pricing or value pricing.	yes	yes		Caltrans, SCAG, VCTC
2.2	Fixed Lanes for Buses and Carpools on Arterials	Provide fixed lanes for buses and carpools on arterial streets where appropriate.	yes	yes		Caltrans, SCAG, VCTC
2.3	Expand number of freeway miles available, allow use by alternative fuel vehicles, changes to HOV lane requirements and hours	Various measures evaluated in many ozone nonattainment areas. Specifics vary according to freeway system, use patterns and local characteristics.	yes	yes		ARB, Caltrans

Measure No.	Measure Title	Description	Feasible for VC?	Used before in VC?	Reasoned Justification for Infeasible Measure	Potential Implementing Agency
Section 108(f) 3. Employer-Based Transportation Management Plans, Including Incentives						
3.1	Commute Solutions	The federal law that complements parking cash-out is called the Commuter Choice Program. It provides for benefits that employers can offer to employees to commute to work by methods other than driving alone.	yes	yes		Employers, Transit Operators, VCTC
3.2	Parking Cash-Out	State law requires certain employers who provide subsidized parking for their employees to offer cash allowance in lieu of a parking space.	yes	yes		ARB, Employers
3.3	Employer Rideshare Program Incentives	Employer rideshare incentives and introduction of strategies designed to reduce single occupant vehicle trips. Examples include: public awareness campaigns, Transportation Management Associations among employers, alternative work hours, and financial incentives for TCM participants as well as tax breaks for employers.	yes	yes		Employers, VCAPCD, VCTC
3.4	Implement Parking Charge Incentive Program	Evaluate feasibility of an incentive program for cities and employers that convert free public parking spaces to paid spaces. Review existing parking policies as they relate to new development approvals.	yes	yes		Cities, County, Employers

Measure No.	Measure Title	Description	Feasible for VC?	Used before in VC?	Reasoned Justification for Infeasible Measure	Potential Implementing Agency
3.5	Preferential Parking for Carpools and Vanpools	This measure encourages public and private employers to provide preferential parking spaces for carpools and vanpools to decrease the number of single occupant automobile work trips. The preferential treatment could include covered parking spaces or nearby spaces.	yes	yes		Employers, VCAPCD
3.6	Employee Parking Fees	Encourage public and private employers to charge employees for parking.	no	no	Not technologically feasible because the region is not urbanized enough to make it effective and could have negative effect to public parking areas (curb parking).	
3.7	Merchant Transportation Incentives	Implement "non-work" trip reduction ordinances requiring merchants to offer customers mode shift travel incentives such as free bus passes and requiring owners, managers & developers of large retail establishments to provide facilities for non-motorized modes.	no	no	No authority to implement.	
3.8	Purchase vans for vanpools	Purchase a specified number of vans for use in employee commute travel.	yes	yes		Employers
3.9	Encourage merchants and employers to subsidize the cost of transit for employees	Provide outreach and possible financial incentives to encourage local employers to provide transit passes or subsidies to encourage less individual vehicle travel.	yes	yes		VCAPCD, VCTC

Measure No.	Measure Title	Description	Feasible for VC?	Used before in VC?	Reasoned Justification for Infeasible Measure	Potential Implementing Agency
3.10	Off-days for ozone alerts just like sick days	On ozone alert days, notify employees through email that there is an ozone alert. Employees are given a pre-specified number of days they can decide not to come in to work on ozone forecast days.	no	no	No authority to implement. Not economically feasible.	
3.11	Pay for in-house meals on ozone action days	Employer pays for meals in-house on ozone alert days so that employees do not travel to off-site locations.	no	no	No authority to implement.	
3.12	Voluntary business closures on ozone action days	A more expensive version of "off-days" for ozone alerts.	no	no	No authority to implement. Not economically feasible.	
3.13	Close government offices on ozone action days to serve as an example	Similar to voluntary business closures.	no	no	No authority to implement.	
3.14	Mandatory compressed work weeks	Self-explanatory.	no	no	No authority to implement. Employer could decide individually if this measure is feasible for them.	
3.15	Telecommuting	Goal of specified percentage of employees telecommuting at least once per week.	no	no	No authority to implement. Employer could decide individually if this measure is feasible for them.	
3.16	Adopt a Safe Routes to School Policy	Adopt policy to increase the number of students that walk/bike to school by removing barriers that prevent children and adults from doing so.	yes	yes		Cities, County, School Districts, State, VCAPCD, VCTC
3.17	Increase Walk-to-School Programs	Develop and promote programs that encourage students to walk to school.	yes	yes		Cities, County, School Districts, VCAPCD, VCTC
3.18	Showers and Lockers at Work	Provide showers and lockers to encourage walking and biking to work.	yes	yes		Cities, County, State

Measure No.	Measure Title	Description	Feasible for VC?	Used before in VC?	Reasoned Justification for Infeasible Measure	Potential Implementing Agency
3.19	Voluntary Employer Parking Cash-out Subsidy	Employers who provide free parking would voluntarily provide the cash equivalent of the parking subsidy to employees who do not drive to work.	yes	yes		Cities, County, Employers, State
3.20	Bike to Work Day	Conduct a one-day bike-to-work event. Provide outreach activities, education on the bike-to-work option, and provide assistance in trying bike to work.	yes	yes		Cities, County, VCAPCD, VCTC
Section 108(f) 4. Trip Reduction Ordinance						
In December 1995, Congress changed the Clean Air Act Amendments to make the Employee Commute Option program voluntary (no longer mandatory). California State Law prohibits mandatory employer based trip reduction ordinance programs (SB437). Therefore, no mandatory programs can be imposed.						
Section 108(f) 5. Traffic Flow Improvement Programs That Achieve Emission Reductions						
5.1	Develop Intelligent Transportation Systems	A variety of technological applications intended to produce more efficient use of existing transportation corridors.	yes	yes		Caltrans, Cities, County, SCAG, Transit Operators, VCTC
5.2	Coordinate Traffic Signal Systems	This measure implements and enhances synchronized traffic signal systems to promote steady traffic flow at moderate speeds.	yes	yes		Cities, County, VCTC
5.3	Reduce Traffic Congestion at Major Intersections	This measure implements a wide range of traffic control techniques designed to facilitate smooth, safe travel through intersections: signalization, turn lanes, median dividers, grade separations.	yes	yes		Cities, County

Measure No.	Measure Title	Description	Feasible for VC?	Used before in VC?	Reasoned Justification for Infeasible Measure	Potential Implementing Agency
5.4	Site-Specific Transportation Control Measures	This measure could include geometric or traffic control improvements at specific congested intersections or at other substandard locations. Another example might be programming left turn signals at certain intersections to lag, rather than lead, the green time for through traffic.	yes	yes		Cities, County
5.5	Removal of On-Street Parking	Require all commercial & industrial development to design and implement off-street parking.	no	no	No authority to implement.	
5.6	Reversible Lanes	Implement reversible lanes on arterial streets to improve traffic flow where appropriate.	no	no	Not technologically feasible because there is not sufficient congestion.	
5.7	One-Way Streets	Redesignate streets (or portions of downtown areas) as one-way to improve traffic flow where appropriate.	yes	yes		Cities, County
5.8	On-Street Parking Restrictions	Restrict on-street parking where appropriate.	no	no	No authority to implement.	
5.9	Bus Pullouts in Curbs for Passenger Loading	Provide bus pullouts in curbs, or queue jumper lanes for passenger loading and unloading.	yes	yes		Cities, County, Transit Operators, VCTC
5.10	Additional Freeway Service Patrol	Operation of additional lane miles of new roving tow truck patrols to clear incidents and reduce delay on freeways during peak periods.	no	no	Not economically feasible. Current and projected congestion levels are too low to warrant measure.	

Measure No.	Measure Title	Description	Feasible for VC?	Used before in VC?	Reasoned Justification for Infeasible Measure	Potential Implementing Agency
5.11	Consider coordinating scheduling of arterial and highway maintenance to exclude ozone action days if the maintenance activities require lane reductions on heavily utilized arterials and highways	Self-explanatory.	yes	no		Caltrans, Cities, County, VCAPCD
5.12	Re-routing of trucks on ozone days	Self-explanatory.	yes	no		VCAPCD
5.13	Fewer stop signs	Improve flow-through traffic by removing stop signs.	no	no	Not technologically feasible because the safety issue outweighs the potential small air quality benefit.	
5.14	Ban left turns	Banning all left turns would stop the creation of bottlenecks, although slightly increasing travel distances.	no	no	No clear demonstration of air quality benefits.	
5.15	Adaptive traffic signals and signal timing	Self explanatory.	yes	yes		Caltrans, Cities, County
5.16	Freeway bottleneck improvements (add lanes, construct shoulders, etc.)	Identify key freeway bottlenecks and take accelerated action to mitigate them.	yes	yes		Caltrans, SCAG, VCTC
5.17	Minimize impact of construction on traveling public. Have contractors pay when lanes are closed as an incentive to keep lanes open	Prohibit lane closures during peak hours, limit construction to weekends or nights.	yes	yes		Caltrans, Cities, County
5.18	Internet provided road and route information	Reduce travel on highly congested roadways by providing accessible information on congestion and travel.	yes	yes		Caltrans

Measure No.	Measure Title	Description	Feasible for VC?	Used before in VC?	Reasoned Justification for Infeasible Measure	Potential Implementing Agency
5.19	Regional route marking systems to encourage underutilized capacity	Encourage travel on local roads and arterials by better route marking to show alternatives.	yes	yes		Caltrans, Cities, County, VCTC
5.20	Congestion management field team to clear incidents	Self-explanatory.	no	no	Not economically feasible. Current and projected congestion levels are too low to warrant measure.	
5.21	Use dynamic message signs to direct/smooth speeds during incidents	Self-explanatory.	yes	yes		Caltrans
5.22	Get real-time traffic information to drivers	Self-explanatory.	yes	yes		Caltrans, VCTC
5.23	55 mph speed limit during ozone season	Self-explanatory.	no	no	No authority to implement. The measure requires state legislative change.	
5.24	Require 40 mph speed limit on all facilities	Depends on area's emission factors.	no	no	No authority to implement. The measure requires state legislative change.	
5.25	Require lower speeds during peak periods	Self-explanatory.	no	no	No authority to implement. The measure requires state legislative change.	
5.26	Street Intersection Realignment	Realign skewed intersections to provide better traffic flow and safety.	yes	yes		Caltrans, Cities, County
5.27	Extend Ramp Metering	Install signals to control flow of vehicles at selected freeway ramp entrances to maintain level of service.	yes	yes		Caltrans
5.28	Road Hazard Reporting	Provide real-time traffic information to help drivers make decisions about when and where to travel.	yes	yes		Caltrans
Section 108(f) 6. Fringe And Transportation Corridor Parking Facilities Serving Multiple Occupancy Vehicle Programs Or Transit Service						
6.1	Park and ride lots	Develop, design and implement new Park and Ride facilities in locations where they are needed.	yes	yes		Caltrans, Cities, County, Transit Operators, VCTC

Measure No.	Measure Title	Description	Feasible for VC?	Used before in VC?	Reasoned Justification for Infeasible Measure	Potential Implementing Agency
6.2	Park and ride lots serving perimeter counties	Specific to a locality.	yes	yes		Cities, County, SCAG, VCTC
6.3	Regional Parking Regulation to Provide Incentives for alternative transportation modes	Regulation to provide parking facilities and designs to encourage carpools, vanpools, and bicycling.	yes	yes		Cities, County, SCAG, VCTC
Section 108(f) 7. Programs To Limit Or Restrict Vehicle Use In Downtown Areas Or Other Areas Of Emission Concentration Particularly During Periods Of Peak Use						
7.1	Off-Peak Goods Movement	Implement an ordinance to restrict truck deliveries by time or place in order to minimize traffic congestion during peak periods.	no	no	No authority to implement.	
7.2	Truck Restrictions During Peak Periods	Implement an ordinance to restrict truck travel during peak periods in order to minimize traffic congestion.	no	no	No authority to implement.	
7.3	Involve school districts to encourage walking to school	Decrease vehicle emissions due to school trips by reducing these trips through education and out-reach programs.	yes	yes		School Districts, VCAPCD
7.4	Adjust school hours so they do not coincide with peak traffic periods and ozone seasons	Measure to reduce travel during peak periods and ozone-contributing periods in the early morning.	no	no	No authority to implement.	
7.5	Area-wide tax for parking	Reduce driving by limiting parking through pricing measures.	no	no	No authority to implement.	
7.6	Increase parking fees	Same as above.	no	no	No authority to implement.	
7.7	Graduated pricing starting with highest in Central Business District (CBD)	Charge the most for parking in the central business or other high volume areas in a city to discourage vehicle travel in these areas.	no	no	No authority to implement.	

Measure No.	Measure Title	Description	Feasible for VC?	Used before in VC?	Reasoned Justification for Infeasible Measure	Potential Implementing Agency
7.8	Buy parking lots and convert to other land use	Limit parking by converting available parking to other land uses to discourage driving.	no	no	Not technologically feasible because the area is too rural to be able to make this effective.	
7.9	Limit the number of parking spaces at commercial airlines to support mass transit	Reduce airport travel by limits on parking at airports.	no	no	Not technologically feasible because it is at the discretion of regional and local airport authority to make land use decisions pertaining to airports.	
7.10	No CBD vehicles unless LEV, alternative fuel, or electric	Define high-use area and ticket any vehicles present unless they are low emitting, alternative fueled or electric.	no	no	No authority to implement.	
7.11	Auto restricted zones	No vehicles allowed in certain areas where high emissions and, congestion contribute to ozone problems.	no	no	No authority to implement.	
7.12	Incentives to increase density around transit centers	Lower travel by increasing residential and commercial density in areas near transit.	yes	yes		Cities, County
7.13	Land use/air quality guidelines	Guidelines for development that contributes to air quality goals.	yes	yes		VCAPCD
7.14	Incentives for cities with good development practices	Provide financial or other incentives to cities that practice air quality-sensitive development.	yes	yes		ARB, SCAG, State Legislature
7.15	Cash incentives to foster jobs/housing balance	Specific to locality – encouraged by California Clean Air Plan.	yes	yes		ARB, Cities, County, SCAG, VCAPCD
7.16	Trip reduction oriented development	Specific to locality – encouraged by California Clean Air Plan.	yes	yes		ARB, Cities, County, SCAG, VCAPCD
7.17	Transit oriented development	Specific to locality – encouraged by California Clean Air Plan.	yes	yes		ARB, Cities, County, SCAG, VCAPCD
7.18	Sustainable development	Specific to locality – encouraged by California Clean Air Plan.	yes	yes		ARB, Cities, County, SCAG, VCAPCD

Measure No.	Measure Title	Description	Feasible for VC?	Used before in VC?	Reasoned Justification for Infeasible Measure	Potential Implementing Agency
7.19	Increase fees for parking garages and meters during ozone episodes	Increase fees for parking garages to deter vehicle use during high ozone level days.	no	no	Not economically feasible.	
7.20	Charge city-owned parking garage pass holders a fee for more than one entrance and exit each day	Extra charges for pass holders to deter vehicle use and vehicle trips.	no	no	Not economically feasible.	
7.21	VTM Tax	Charge VMT tax of \$0.02 per mile for all vehicles registered or garaged in the region.	no	no	Need state legislation.	
Section 108(f) 8. Programs For The Provision Of All Forms Of High-Occupancy, Shared-Ride Services						
8.1	Financial Incentives, Including Zero Bus Fares	Provide financial incentives or other benefits, such as free or subsidized bus passes and cash payments for not driving, in lieu of parking spaces for employees who do not drive to the workplace.	yes	yes		Employers
8.2	Internet ridematching services	Provide match-lists, route info, hours and contact information over the internet to assist individuals in joining or developing carpools.	yes	yes		SCAG, VCTC
8.3	Preferential parking for carpoolers	Provide free, covered, near-building or similar incentives to carpoolers.	yes	yes		Cities, County, Employers, VCTC
8.4	Credits and incentives for carpoolers	Self-explanatory.	yes	yes		Cities, County, Employers, VCTC
8.5	Employers provide vehicles to carpoolers for running errands or emergencies	Having vehicles available for work-day errands makes it easier to go to work without one.	yes	yes		Cities, County, Employers
8.7	School carpools	Self-explanatory.	no	no	No authority to implement.	

Measure No.	Measure Title	Description	Feasible for VC?	Used before in VC?	Reasoned Justification for Infeasible Measure	Potential Implementing Agency
8.8	Guaranteed ride home	Provide guaranteed rides via taxi, rental cars, etc. to carpoolers & vanpoolers who are left without a ride home.	yes	yes		Employers, VCTC
8.9	Auto sharing Program	Fund incentives for new auto sharing customers (i.e., Flexcar or Zipcar services).	yes	yes		Cities, County, VCTC
Section 108(f) 9. Programs To Limit Portions Of Road Surfaces Or Certain Sections Of The Metropolitan Area To The Use Of Non-Motorized Vehicles Or Pedestrian Use, Both As To Time And Place						
9.1	Establish Auto Free Zones and Pedestrian Malls	Establish auto free zones and pedestrian malls where appropriate.	yes	yes		Cities, County
9.2	Encouragement of Pedestrian Travel	Encourage the use of pedestrian travel as an alternative to automobile travel. Pedestrian travel is quite feasible for short shopping, business, or school trips. Promotion of pedestrian travel could be included in air pollution public awareness efforts to remind people of this basic alternative.	yes	yes		SCAG, VCTC, VCAPCD
9.3	Bicycle & Pedestrian Program	Fund high priority projects in countywide plans consistent with funding availability.	yes	yes		Cities, County, VCTC
9.4	Close certain roads for use by non-motorized traffic	During special events, weekends, or certain times of the day, close some roads to all but non-motorized traffic.	yes	yes		Cities, County

Measure No.	Measure Title	Description	Feasible for VC?	Used before in VC?	Reasoned Justification for Infeasible Measure	Potential Implementing Agency
9.5	Encouragement of Bicycle Travel	Promotion of bicycle travel to reduce automobile use and improve air quality. Bikeway system planning, routes for inter-city bike trips to help bicyclists avoid other, less safe facilities. Another area for potential actions is the development and distribution of educational materials regarding bicycle use and safety.	yes	yes		Caltrans, Cities, County, VCAPCD, VCTC
9.6	Free Bikes	Provide simple utilitarian bikes that can be used throughout the metro area and dropped off at destination for use by anyone desiring use.	no	no	No authority to implement. Evidence suggests that bicycle theft is a problem in other programs and renders this measure technically and economically infeasible.	
9.7	Cash Rebates for Bikes	Provide financial incentives to purchase bicycles and thereby encourage use.	no	no	No clear demonstration of air quality benefits.	
9.8	Close streets for special events for use by bikes and pedestrians	Self-explanatory.	yes	yes		Cities, County
9.10	Use condemned dirt roads for bike trails	Self-explanatory.	no	no	Not applicable because there are no condemned dirt roads in the region.	
Section 108(f) 10. Programs For Secure Bicycle Storage Facilities And Other Facilities, Including Bicycle Lanes, For The Convenience And Protection Of Bicyclists, In Both Public And Private Areas						
10.1	Bike racks at work sites	Self explanatory.	yes	yes		Cities, County, Employers, VCTC
10.2	Bike Racks on Buses	Bike racks would be placed on a to-be-determined number of buses to increase bicycle travel.	yes	yes		Transit Operators, VCTC

Measure No.	Measure Title	Description	Feasible for VC?	Used before in VC?	Reasoned Justification for Infeasible Measure	Potential Implementing Agency
10.3	Regional Bike Parking Ordinance for all new construction	Bike Transit Centers for/at all employment centers 100+ employees: Bike lockers, clothing lockers, showers, cleaners drop-off and pick-up. Bike repair and rental.	no	no	No authority to implement.	
10.4	Bike lockers at Metro stations, park & ride lots, other locations	Expand existing bike lockers at Metrorail stations; install bicycle storage spaces in parking lots.	no	no	Not economically feasible.	
10.5	Development of bicycle travel facilities	Encourages a variety of capital improvements to increase bicycle use. Off-street bikeways where high-speed roadways preclude safe bicycling. Clearly mark travel facilities signs and provide adequate maintenance.	yes	yes		Cities, County, VCTC
10.6	Provide bike pedestrian facilities safety patrols	Self-explanatory.	yes	yes		Cities, County
10.7	Inclusion of bicycle lanes on thoroughfare projects	Self-explanatory.	yes	yes		Cities, County, State
10.8	Bicycle lanes on arterial and frontage roads	Self-explanatory.	yes	yes		Cities, County, State
10.9	Bicycle route lighting	Self-explanatory.	yes	yes		Cities, County, State
10.10	Expedite bicycle projects from the RTP	Create bicycle and pedestrian master plan and build out at an accelerated rate to achieve benefits in time for attainment deadline.	yes	yes		Cities, County, SCAG, VCTC

Measure No.	Measure Title	Description	Feasible for VC?	Used before in VC?	Reasoned Justification for Infeasible Measure	Potential Implementing Agency
Section 108(f) 11. Programs To Control Extended Idling Of Vehicles						
11.1	Limit Excessive Car Dealership Vehicle Starts	Require car dealers to limit the starting of vehicles for sale on their lot(s) to once every two weeks. Presently, a number of new and used car dealers start their vehicles daily to avoid battery failure and assure smooth start-ups for customer test drives.	no	no	Not technologically feasible because vehicles in the South Central Coast are started much less frequently than in colder climates.	
11.2	Limitations on Vehicle Idling	Limitations to limit extended idling operations of trucks.	yes	yes		ARB, VCAPCD
11.3	Turn off engines while stalled in traffic	Public outreach or police-enforced program.	no	no	The measure raises safety and congestion concerns and has no clear demonstration of air quality emissions benefits.	
11.4	Restrict idling	Require idle limits for trucks.	yes	yes		ARB, VCAPCD
11.5	Reduced idling at drive-throughs. Close window service	Mandate no idling or do not allow drive-through windows during ozone season.	no	no	No clear demonstration of air quality emissions benefits. This measure is not economically feasible.	
11.6	Promote use of Pony engines	Use special battery engines to keep air conditioning and other truck systems working while truck not in use.	yes	yes		ARB, VCAPCD
11.7	Idle restrictions at airport curbsides	Police enforced.	no	no	No commercial airport in county. This measure is implemented based on security restrictions.	
11.8	Control extended idling of Buses and Trucks	Step-up enforcement of existing regulations to prevent extended vehicle idling.	no	no	Not economically feasible. Enforcement of idle restrictions is a low priority for police relative to their other missions.	

Measure No.	Measure Title	Description	Feasible for VC?	Used before in VC?	Reasoned Justification for Infeasible Measure	Potential Implementing Agency
11.9	Outlaw idling in parking lots	Self-explanatory and police enforced program.	no	no	Not economically feasible. Enforcement of idle restrictions is a low priority for police relative to their other missions. The cost effectiveness of this measure has not been demonstrated.	
11.10	Truck Stop Electrification	Provide electric charging stations at truck stops to power heating/AC units and other on-board equipment.	yes	yes		ARB, Caltrans, VCTC
Section 108(f) 12. Program To Reduce Motor Vehicle Emissions, Consistent With Title II, Which Are Caused By Extreme Cold Start Conditions						
The definition of an "extreme cold start" specifies temperatures below 20 degrees Fahrenheit. Not applicable in the South Central Coast - no extreme cold start conditions.						
Section 108(f) 13. Employer-Sponsored Programs To Permit Flexible Work Schedules						
13.1	Alternative Work Schedules	Enables workers to choose their own working hours within certain constraints. Flextime provides the opportunity for employees to use public transit, ridesharing, and other nonmotorized transportation. A related strategy, staggered work hours, is designed to reduce peak congestion in the vicinity of the workplace.	yes	yes		Employers, VCAPCD
13.2	Modifications of Work Schedules	Implement alternate work schedules that flex the scheduled shift time for employees. Encourage the use of flexible or staggered work hours to promote off-peak driving and accommodate the use of transit and carpooling.	yes	yes		Employers, VCAPCD

13.3	Telecommunications-Telecommuting	Encourage the use of telecommuting in place of motor vehicle use where appropriate.	yes	yes		SCAG, VCAPCD
Measure No.	Measure Title	Description	Feasible for VC?	Used before in VC?	Reasoned Justification for Infeasible Measure	Potential Implementing Agency
13.4	Telecommunications-Teleconferencing	Encourage the use of teleconferencing in place of motor vehicle use where appropriate.	yes	yes		SCAG, VCAPCD
Section 108(f) 14. Programs And Ordinances To Facilitate Non-Automobile Travel, Provision And Utilization Of Mass Transit, And To Generally Reduce The Need For Single-Occupant Vehicle Travel, As Part Of Transportation Planning And Development Efforts Of A Locality, Including Programs And Ordinances Applicable To New Shopping Centers, Special Events, And Other Centers Of Vehicle Activity						
14.1	Areawide Public Awareness Programs	This measure focuses on conducting ongoing public awareness programs throughout the year to provide the public with information on air pollution and encourage changes in driving behavior and transportation mode use.	yes	yes		VCAPCD, VCTC
14.2	Special Event Controls	This measure would require new and existing owners/operators of the special event centers to reduce mobile source emissions generated by their events. A list of optional strategies would be available that reduce mobile source emissions. The definition of "special event center" could be developed through the rule development process.	yes	yes		VCAPCD

Measure No.	Measure Title	Description	Feasible for VC?	Used before in VC?	Reasoned Justification for Infeasible Measure	Potential Implementing Agency
14.3	Land Use/Development Alternatives	This measure includes encouraging land use patterns which support public transit and other alternative modes of transportation. In general, this measure would also encourage land use patterns designed to reduce travel distances between related land uses (e.g., residential-commercial). Shorter trip lengths ultimately relieve traffic congestion and improve air quality.	yes	yes		Cities, County, SCAG, VCTC
14.4	Voluntary No Drive Day Programs	Conduct voluntary no drive day programs during the ozone season through media and employer based public awareness activities.	yes	yes		VCAPCD
14.5	Evaluation of the Air Quality Impacts of New Development and Mitigation of Adverse Impacts	Evaluate the air quality impacts of new development and mitigate any adverse impacts.	yes	yes		Cities, County, VCAPCD
14.6	Transportation for Livable Communities (TLC)/Housing Incentive Program	Program provides planning grants, technical assistance, and capital grants to help cities and nonprofit agencies define and implement transportation projects that support community plans including increased housing near transit.	yes	yes		SCAG, State, VCTC
14.7	Incentives to increase density around transit centers	Lower travel by increasing residential and commercial density in areas near transit.	yes	yes		Cities, County

14.8	Incentives for cities with good development practices	Provide financial or other incentive to local cities that practice air quality sensitive development.	yes	yes		Cities, SCAG, State
Measure No.	Measure Title	Description	Feasible for VC?	Used before in VC?	Reasoned Justification for Infeasible Measure	Potential Implementing Agency
14.9	Increase state gas tax	Self-explanatory.	no	no	No authority to implement and no clear demonstration of air quality benefits.	
14.10	Notification of Spare The Air	This measure focuses on conducting ongoing public awareness programs throughout the year to provide the public with information on air pollution and encourage changes in driving behavior and transportation mode use.	yes	yes		VCAPCD
14.11	Display air quality data on billboards	Self-explanatory.	no	no	Not economically feasible.	
14.12	Sell clean air license plate to fund air quality programs	Self-explanatory	no	no	Need state legislation. No clear demonstration of air quality benefits.	
14.13	Government Action Days (spare the air day, ozone action day)	Declare a Spare The Air day when ozone levels reach episodic thresholds so that the public is informed and encouraged to scale back activities generating pollutants.	yes	yes		VCAPCD
14.14	Vehicle tax for two or more vehicles per household	Initiate legislation to put a vehicle tax on household with two or more vehicles.	no	no	Need state legislation. No clear demonstration of air quality benefits. Not economically feasible.	
14.15	Pay-As-You-Drive Insurance	Self-explanatory.	no	no	Need state legislation. No clear demonstration of air quality emissions benefits.	
Section 108 (f) 15. Programs For New Construction And Major Reconstructions Of Paths, Tracks Or Areas Solely For The Use By Pedestrian Or Other Non-Motorized Means Of Transportation When Economically Feasible And In The Public Interest. For Purposes Of This Clause, The Administrator Shall Also Consult With The Secretary Of The Interior						
15.1	Encouragement of Pedestrian Travel	Promote public awareness and use of walking as an alternative to the motor vehicle	yes	yes		ARB, SCAG, VCAPCD

15.2	Pedestrian and Bicycle Overpasses Where Safety Dictates	Ongoing implementation as development occurs.	yes	yes		Cities, County
Measure No.	Measure Title	Description	Feasible for VC?	Used before in VC?	Reasoned Justification for Infeasible Measure	Potential Implementing Agency
15.3	Require inclusion of bicycle lanes on state and federally funded thoroughfare projects	Require bicycle lanes on all state and federally funded road projects.	no	no	No authority to implement. Not economically feasible.	
15.4	Require inclusion of paved shoulders adequate for bicycle use on state or federally funded reconstruction or widening of federal collectors	Require paved shoulders on state and federally funded roads that require reconstruction or widening.	no	no	No authority to implement. Not economically feasible.	
Section 108(f) 16. Program To Encourage The Voluntary Removal From Use And The Marketplace Of Pre-1980 Model Year Light Duty Vehicles And Pre-1980 Model Light Duty Trucks						
16.1	Counties assess ten dollar license plate fee to fund repair/replacement program for high-emitters	Self-explanatory.	no	no	No authority to implement.	
16.2	Buy vehicles older than 1975	Self-explanatory.	yes	yes		ARB, VCAPCD
16.3	Demolish impounded vehicles that are high emitters	Self-explanatory.	no	no	No authority to implement. Not economically feasible.	
16.4	Do whatever is necessary to allow cities to remove the engines of high emitting vehicles (pre-1980) that are abandoned and to be auctioned	Self-explanatory.	no	no	No authority to implement. Not economically feasible.	
16.5	Accelerated retirement program	Identify high emitting vehicle age groups and develop a program to remove them from use.	yes	yes		ARB, VCAPCD